Diagnosis and Treatment of Vascular Disease

ABSTRACT

The present invention is based at least in part on the discovery of a polymorphism within the lysyl hydroxylase 2 (PLOD2) gene. Accordingly, the invention provides nucleic acid molecules having a nucleotide sequence of an allelic variant of a PLOD2 gene. The invention also provides methods for identifying specific alleles of polymorphic regions of a PLOD2 gene, methods for determining whether a subject is or is not at risk of developing a disease which is associated with a specific allele of a polymorphic region of a PLOD2 gene, *e.g.*, a vascular disease, based on detection of polymorphisms within the PLOD2 gene, and kits for performing such methods. The invention further provides methods for classifying a subject who is or is not at risk for developing, a vascular disease or disorder as a candidate for a particular clinical course of therapy or a particular diagnostic evaluation. The invention further provides methods for selecting a clinical course of therapy or a diagnostic evaluation to treat a subject who is or is not at risk for developing, a vascular disease or disorder.